to compare final thrombus scores and CTFC results between unprotected vs. Angiojet vs. Percusurge groups. **Results**: The mean initial CTFC in the unprotected stenting vs. Angiojet vs. Percusurge groups was 83.8, 72.5, and 90.8 respectively. Although the mean final Angiojet CTFC was lower than the unprotected group (25.6 +/- 13.4 vs. 27.6 +/- 19.3), the difference was not statistically significant (p=0.55). However, comparison between the final CTFC in the Percusurge group and the unprotected group was statistically significant (17.1 +/- 6.2 vs. 27.6 +/- 19.3, p=0.02). The Angiojet group had less thrombus than the unprotected group (3.9 +/- 1.0 vs. 4.4 +/- 0.86, p<0.002). There was no significant difference in thrombus scores in the Percusurge and unprotected groups (4.6 +/- 0.78 vs. 4.4 +/- 0.86, p=0.3). **Conclusions**: The use of distal protection during AMI percutaneous intervention improves the final CTFC. This correlates with decreased in-hospital and long term mortality. We, therefore, recommend the use of distal protection in more thrombus burdened AMI stenting.

1097-95 Benefits and Risks of Abciximab Use in Primary Angioplasty for Acute Myocardial Infarction: The CADILLAC Trial

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Background Modest-sized trials examining the benefit of glycoprotein IIb/IIIa inhibition as adjunctive therapy in primary percutaneous coronary intervention (PCI) have demonstrated improved early clinical and angiographic outcomes, yet variability in trial design, sample size, and late outcomes have precluded these studies from being definitive.
Methods We performed a two-way comparison of early and late outcomes for 2,082 AMI patients undergoing primary PCI (PTCA or stenting) who were randomized to abciximab (abcx, n=1052) or control (n=1030).
Results Despite similar baseline clinical and angiographic characteristics, abcx treatment was associated with a significant reduction in the 30-day occurrence of death (D), repeat myocardial infarction (reMI), ischemia-driven target vessel revascularization (TVR), or disabling stroke (7.0% vs. 4.6%, OR 1.54, 95% CI, 1.08 to 2.19, p=0.01). In patients randomized to abcx, TIMI 3 flow tended to be greater at baseline prior to abcx (20.3% vs. 23.8%, p=0.06), and was more frequently present post-procedure (94.6% versus 96.5%, p=0.03). Severe bleeding was not increased with abcx. 30-day subacute thrombosis rates were also reduced by abcx (1.5% vs. 0.4%, p=0.01). By 12 months, abcx was no longer associated with significant differences in the composite endpoint (18.4% for controls vs. 16.9% for abcx, p=0.29). Myocardial salvage, angiographic restenosis, and infarct artery reocclusion at 7-month follow-up angiography were unaffected by abcx treatment. Although the absolute difference in ischemic TVR rates between the two groups persisted at 1 year, the relative difference was no longer statistically significant, in part due the lack of influence by abcx on restenosis and accrual of repeat revascularization procedures. No significant interaction between coronary stenting and abcx was observed.
Conclusions Abciximab treatment, when administered just prior to intervention as adjunctive therapy to primary PCI, is associated with significant reductions in early adverse outcomes. In spite of an overall early reduction in the composite endpoint, abcx treatment does not significantly influence the occurrence of D, reMI, or restenosis at 1 year.

1097-96 Differences in Outcome of Primary Angioplasty for Acute Myocardial Infarction During Routine Duty Hours Versus During Off-Hours: Is It the Patient or Is It Care?

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Background: A circadian variation in the time of onset of acute myocardial infarction with a peak in the morning hours has been described. We sought to investigate the impact of circadian patterns on the practice of primary angioplasty.
Methods and results: We studied 1702 consecutive patients with acute ST segment elevation myocardial infarction treated with primary angioplasty. We observed circadian variation in frequency of symptom-onset, hospital admission, and first balloon inflation. Circadian patterns of symptom-onset, hospital admission and balloon inflation are similar. A majority of patients have symptom-onset (53%), hospital admission (53%) and first balloon inflation (52%) during daytime working hours (08.00-18.00h). There were no differences in baseline clinical characteristics or treatment delays between routine duty hours and off-hours patients. Hospital admission between 08.00 and 18.00 was associated with an angioplasty failure rate of 3.8%, compared to 6.9% between 18.00 and 08.00, p<0.01. Thirty day mortality was 1.9% in patients with hospital admission between 08.00 and 18.00, compared to 4.2% in patients with hospital admission between 18.00 and 08.00, p<0.01.
Conclusions: Circadian variations may have a profound effect on the practice of primary angioplasty. A majority of patients is treated during the daytime. Patients treated during off-hours have a more often failed angioplasty and consequently worse clinical outcome, when compared to patients treated during routine duty hours.

1097-97 Intracoronary Thrombectomy Improves Myocardial Reperfusion in Patients Undergoing Direct Angioplasty: A Single-Center Randomized Study

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Background. Embolization of thrombus and plaque debris during angioplasty for acute myocardial infarction (AMI) may lead to obstructions in the microvascular system, causing suboptimal tissue reperfusion. Mechanical intracoronary thrombectomy is thought to reduce macro and micro embolization of debris, potentially improving myocardial reperfusion. We thought to elucidate the effects on myocardial reperfusion of mechanical thrombectomy as adjunct to coronary stenting in the setting of direct angioplasty for AMI.
Methods: 92 patients with acute myocardial infarction and angiographic evidence of intraluminal thrombus were randomized to coronary thrombectomy followed by stenting (46 patients) or to stenting alone (46 patients). Thrombectomy was performed using the X-Sizer catheter (EndiCOR Inc. San Clemente, CA, USA). TIMI flow grade, diameter stenosis, minimal lumen diameter (MLD) were assessed at baseline and after the procedure. Myocardial reperfusion was assessed according to angiographic (Myocardial Blush Grade) and ECG criteria (ST segment resolution).
Results: Baseline clinical and angiographic characteristics were similar between groups. Postprocedural TIMI flow, MLD and diameter stenosis were not different between groups (p=ns). The blush 3 was observed more often in patients underwent thrombectomy than in patient who did not: 33 of 46 (71.7%) patients versus 17 of 46 (36.9%) (p=0.006). Assessing the reperfusion according to ECG criteria, post-procedural ST-segment elevation appeared normalized compared to baseline in 27 of 46 patients (58.7%) of thrombectomy group versus 15 of 46 (32.6%) of group assigned to conventional strategy, regressed > 50% in 11 (23.9%) versus 9 (19.6%), and remained unchanged in 8 (17.4%) versus 22 patients (47.8%) respectively (p=0.001). There was a trend toward more no-reflow and distal embolizations in patients not underwent thrombectomy (p=0.09 and p=0.06 respectively). By multivariate analysis the use of X-Sizer was an independent predictor of Blush-3 (p= 0.001).
Conclusions: Intracoronary thrombectomy during direct angioplasty improves myocardial reperfusion as assessed by myocardial blush grade and ST-segment resolution.

1097-98 Impact of Multivessel Coronary Artery Disease on In-Hospital Outcome in Patients Treated by Immediate Angioplasty for Acute Myocardial Infarction

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Background. The aim of the study was to analyze in-hospital outcome of patients (pts) with acute myocardial infarction (AMI) treated by immediate angioplasty (PCI) with and without other significant stenoses in non-infarct related artery.
Methods. A total of 970 consecutive pts with AMI (77% male, mean age 57.0±11.2 years) treated by immediate PCI were compared, according to coronary angiography, in the two groups: the SINGLE group (456 pts without other stenoses >50%) and the MULTI group (514 pts with multivessel disease). Thrombolytic treatment was administered before PCI to 378 (39%) of pts.
Results: In MULTI group pts were older (59.5±10.9 vs. 54.2±11.0 years in SINGLE group, p<0.0001) and the time from the onset of AMI to admission was longer (4.2+2.9 vs. 5.1±4.6, p=0.001). Diabetes (24.4% vs. 15.6%, p<0.0001), history of hypertension (56.8% vs. 43.2%, p<0.0001) and prior MI (29.4% vs. 10.1%, p<0.0001) were more frequent, whereas smoking (60.2% vs. 68.4%, p=0.0078) and anterior location (35.6% vs. 50.0%, p<0.0001) were less common in the MULTI group. Cardiogenic shock (CS) on admission was present in 15% of pts in MULTI compared to 7% in SINGLE group, p<0.0001. Procedural and in-hospital outcome is presented in the table.

	MULTI	SINGLE	P value
N (%)	514 (53%)	456 (47%)	
Baseline TIMI 2 or 3 flow	33.1 %	38.2 %	0.099
Final TIMI 3 flow	89.1 %	91.5 %	0.22
Stent implantation	51.4 %	59.2 %	0.014
Ejection fraction	43.3±8.4	45.7±7.8	<0.0001
Reocclusion	7.0 %	4.8 %	0.15
Bypass surgery	8.4 %	0.4 %	<0.0001
In-hospital mortality	8.0 %	2.6 %	0.0003
Pts without CS on admission	11/437 (2.5%)	4/424 (0.9%)	0.078
Pts with CS on admission	30/77 (39%)	8/32 (25%)	0.16

Conclusion. Despite similar effectiveness of PCI, patients with AMI and multivessel disease have worse in-hospital outcome. One of the reasons for that is higher incidence of cardiogenic shock on admission.